

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in this application.

1. (Canceled)

2. (Currently Amended) A method for transmitting power line communications ("PLC") signals in a PLC system including a head-end PLC transceiver coupled to a plurality of remote PLC transceivers over utility electric power conveying media, the method comprising:

establishing a timing controlled PLC data signal communications frame having a predetermined duration, wherein the timing frame includes a downstream time slot assigned for transmission of PLC data signals from the head-end to at least one of the remotes and at least one upstream time slot assigned for transmission of PLC data signals from at least one of the remotes to the head-end;

selectively allocating a first portion of the duration of the timing frame to the downstream time slot and a second portion of the duration to the at least one upstream time slot;

transmitting the frame onto the PLC system at predetermined intervals; and

transmitting PLC signals between the head-end and at least one of the remotes in accordance with the timing frame, comprising isolating the plurality of remote PLC transceivers from each other during the at least one upstream time slot to prevent any of the plurality of remote PLC transceivers from detecting and decoding content from any other of the remote PLC transceivers.

3. (Original) The method of claim 2, wherein the PLC system is a frequency division multiplexed system.

4. (Original) The method of claim 3, wherein the frequency division multiplexed system is an orthogonal frequency division multiplexed ("OFDM") system.

5. (Original) The method of claim 4, wherein the head-end transmits an OFDM PLC signal simultaneously to a plurality of the remotes, wherein the OFDM signal contains an OFDM symbol for each of the remotes, each of the OFDM symbols contain at least one predetermined tone and the at least one tone is different for each of the remotes.

6. (Original) The method of claim 2, wherein the first portion is not equal to the second portion.

7. (Original) The method of claim 2, wherein the selectively allocating the duration of the timing frame includes dynamically changing the size of at least one of the first and second portions.

8. (Original) The method of claim 2, wherein the selectively allocating the duration of the timing frame includes determining an optimal size for at least one of the first and second portions based on at least one of upstream and downstream bandwidth utilization data.

9. (Original) The method of claim 2, wherein the transmitting further comprises: transmitting from the head-end a downstream orthogonal frequency division multiplexed ("OFDM") data signal having a first number of carriers and a first symbol length, transmitting from at least one of the remotes an upstream OFDM data signal having a second number of carriers and a second symbol length, wherein the first number of carriers is greater than the second number of carriers and the first symbol length is longer than the second symbol length.

10. (Original) The method of claim 9, wherein a plurality of the remotes transmits OFDM data signals and wherein the first symbol length exceeds the sum of the second symbol lengths for the OFDM signals transmitted by the respective plurality of the remotes.

11. (Original) The method of claim 9, wherein the head-end can only decode an OFDM data signal having a number of carriers and a symbol length substantially different from the first number of carriers and the first symbol length, respectively, and wherein at least one of the remotes can only decode an OFDM data signal having a number of carriers and a symbol length substantially different from the second number of carriers and the second symbol length, respectively.

12. (Original) The method of claim 2, wherein the timing frame is a time division multiplexed PLC data signal communications frame.

13. (Currently Amended) A system for transmitting power line communications ("PLC") signals comprising:

a head-end PLC transceiver coupled to a plurality of remote PLC transceivers over a PLC network, wherein the head-end transmits downstream data signals for reception ~~[[at]]~~ by at least one of the remotes and at least one of the remotes transmits upstream data signals for reception at the head-end in accordance with a timing controlled PLC data signal communications frame having a predetermined duration,

wherein the timing frame includes a downstream time slot assigned for the downstream data signals and at least one upstream time slot assigned for the upstream data signals, wherein the downstream time slot occupies a first portion of the duration of the timing frame and the upstream time slot occupies a second portion of the duration of the timing frame and wherein the

lengths of the first and second portions are selectable, ~~and~~

wherein the head-end transmits the frame onto the PLC system at predetermined intervals, and

wherein the plurality of remote PLC transceivers is isolated from each other during the at least one upstream time slot to prevent any of the plurality of remote PLC transceivers from detecting and decoding content from any other of the remote PLC transceivers.

14. (Original) The system of claim 13, wherein the head-end and the remotes operate in accordance with a frequency division multiplexed PLC system configuration.

15. (Original) The system of claim 14, wherein the frequency division multiplexed system is an orthogonal frequency division multiplexed system.

16. (Original) The system of claim 15, wherein the head-end transmits an OFDM PLC signal simultaneously to a plurality of the remotes, wherein the OFDM signal contains an OFDM symbol for each of the remotes, each of the OFDM symbols contain at least one predetermined tone and the at least one tone is different for each of the remotes.

17. (Original) The system of claim 13, wherein the first portion is not equal to the second portion.

18. (Original) The system of claim 13, wherein the size of at least one of the first and second portions is dynamically adjustable.

19. (Original) The system of claim 13, wherein the size of at least one of the first and second portions is optimized based on upstream and downstream bandwidth utilization data.

20. (Original) The system of claim 13, wherein the head-end transmits a downstream orthogonal frequency division multiplexed ("OFDM") data signal having a first number of carriers and a first symbol length, and wherein at least one of the remotes transmits an upstream OFDM data signal having a second number of carriers and a second symbol length, wherein the first number of carriers is greater than the second number of carriers and the first symbol length is longer than the second symbol length.

21. (Original) The system of claim 20, wherein a plurality of the remotes transmits OFDM data signals and wherein the first symbol length exceeds the sum of the second symbol lengths for the OFDM signals transmitted by the respective plurality of the remotes.

22. (Original) The system of claim 20, wherein the head-end can only decode an OFDM data signal having a number of carriers and a symbol length substantially different from the first number of carriers and the first symbol length, respectively, and wherein at least one of the remotes can only decode an OFDM data signal having a number of carriers and a symbol length substantially different from the second number of carriers and the second symbol length, respectively.

23. (Canceled)

24. (New) The method of claim 2, wherein isolating the plurality of remote PLC transceivers from each other during the at least one upstream time slot comprises:

when one of the plurality of remote PLC transceivers is transmitting during the at least one upstream time slot of the communications frame, de-activating the other PLC transceivers of

the plurality of remote PLC transceivers to prevent the other PLC transceivers from receiving the transmission.

25. (New) The method of claim 24, wherein isolating the plurality of remote PLC transceivers from each other during the at least one upstream time slot further comprises:

dividing the at least one upstream time slot of the communications frame into a plurality of upstream time slots; and

assigning at least one time slot of the plurality of upstream time slots to each of the plurality of remote PLC transceivers.

26. (New) The method of claim 24, wherein isolating the plurality of remote PLC transceivers from each other during the at least one upstream time slot further comprises:

dividing the at least one upstream time slot of the communications frame into a plurality of upstream time slots; and

reducing latency by servicing only a subset of the plurality of remote PLC transceivers during the communications frame, comprising assigning time slots only to that subset of remote PLC transceivers.

27. (New) The method of claim 2, wherein isolating the plurality of remote PLC transceivers from each other during the at least one upstream time slot comprises, for each of the plurality of remote PLC transceivers, using a different combination of one or more carriers and one or more symbol lengths for transmitting PLC signals to the head-end PLC transceiver.

28. (New) The method of claim 2, wherein the content comprises at least one keystroke or mouse click entered by a user of one of the remote PLC transceivers.

29. (New) The method of claim 2, wherein the downstream time slot is assigned for transmission of both content and synchronization data.

30. (New) The system of claim 13, wherein each of the plurality of remote PLC transceivers is configured to de-activate whenever any other one of the plurality of remote PLC transceivers is transmitting during the at least one upstream time slot of the communications frame, in order to prevent receipt of the transmission.

31. (New) The system of claim 30, wherein:  
the at least one upstream time slot of the communications frame is divided into a plurality of upstream time slots; and  
at least one time slot of the plurality of upstream time slots is assigned to each of the plurality of remote PLC transceivers.

32. (New) The system of claim 30, wherein:  
the at least one upstream time slot of the communications frame is divided into a plurality of upstream time slots; and  
the plurality of upstream time slots is assigned to a subset of the plurality of remote PLC transceivers, such only a portion of the plurality of remote PLC transceivers is serviced during the communications frame in order to reduce latency.

33. (New) The system of claim 13, wherein each of the plurality of remote PLC transceivers is configured to use a different combination of one or more carriers and one or more symbol lengths for transmitting PLC signals to the head-end PLC transceiver.

34. (New) The system of claim 13, wherein the content comprises at least one keystroke or mouse click entered by a user of one of the remote PLC transceivers.

35. (New) The system of claim 13, wherein the downstream time slot is assigned for transmission of both content and synchronization data.